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OBSERVATIONS

UPON THE

SHOEING OF HORSES:

WITH

An Anatomical Description of the
BONES in the Foot of a Horse.

By J. CLARK, FARRIER.

_____ cavatque
Tellurem, et solido graviter sonat ungula cornu.
VIRG. GEORG.

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OBSERVATIONS

ON THE

SHOOTING OF FLORES



BY J. CO. WATER

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The PREFACE.

IN most treatises which have been published on the diseases of horses, the injudicious practice of loading their hoofs with heavy ill-formed shoes, has been very justly condemned.

IN treating upon the diseases of the feet, it has been shewn, that the most pernicious consequences have followed from this error ; and various forms of shoes, with different methods of treating their feet have been recommended.

THE *Sieur la Fosse*, Farrier to the French King, and Mr. Osmer of London, have particularly thrown light upon this subject, and their observations have led to real improvements in that branch of Farriery.

So much is now supposed to be known by every practitioner in Farriery, that it may seem presumptuous to offer any thing farther on the subject. But certainly there cannot be a greater obstruction to the progress of any art, than an opinion that no room is left for further improvement. From experience I am convinced, that this branch, and indeed

Farriery

Farriery in general, does still admit of a great deal.

HOWEVER necessary it has been found to fix iron shoes upon the hoofs of horses, it is certainly contrary to the original design of shoeing them, first to destroy their hoofs by paring, &c. and afterwards to put on the foot a broad strong shoe to protect what remains, or rather to supply what has been taken away. Yet however absurd this manner of treating the feet of horses may appear, it is well known, that this practice has been carried to a very great length, and still continues to be thought absolutely necessary.—

The destruction of their hoofs, and
many

many other bad consequences arising from it are every day but too apparent.

In hopes then of rendering the operation of shoeing horses less destructive to their feet, I have ventured to offer to the public, a few remarks on this subject, which are the result of many years experience. And if this attempt shall meet with success, I may afterwards communicate some observations on the diseases of that animal, which may be attended with general utility.

In the following remarks, perspicuity and brevity have been carefully observed: And in order to render the

P R E F A C E. vii

the anatomical description of the foot more plain and easy, a plate is added, in which the bones of the foot, and those immediately connected with them, are represented in different views. The form of the shoe that is commonly used, and that which is recommended here, are also represented, and accurately described.

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the anatomical description of the
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 too more plain and early, a plate is
Explanation of the PLATE.

FIGURE I.
REPRESENTS an upper and side-
 view of the hoof of a horse,
 with its inner cavity.

- A. The toe.
- B. B. The heels.
- C. The frog, with its cavities.

FIG. II. Shews the under-part of
 the hoof, containing the sole, frog,
 and bars.

- A. A. The crust.
- B. B. The sole.
- C. C. The bars, or binders.
- E. E. The heels.

D.

Fig. 9.



Fig. 12.



Fig. 13.

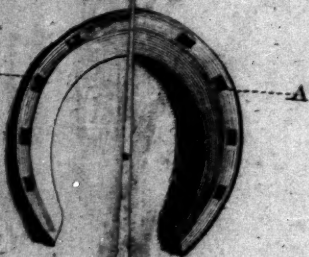


Fig. 10.

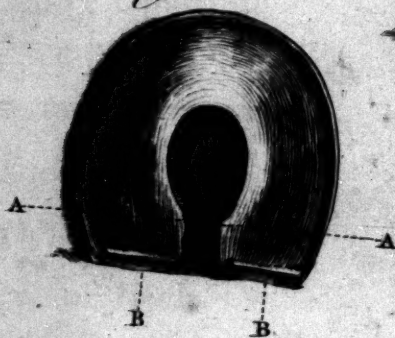


Fig. 11.

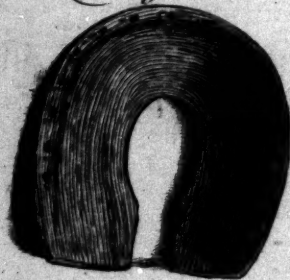


Fig.

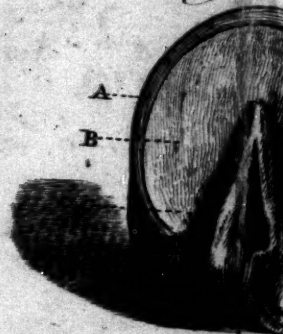


Fig. 2.



Fig. 1.



Fig. 4.

Fig. 3.



Fig. 6.



Fig. 5.



Fig. 8.



Fig. 7.





D. The longitudinal cleft in the middle of the frog.

FIG. III. Shews the under part of the coffin-bone.

A. The round part, or toe.

B. B. It's processes, or heels.

C. The infertion of the flexor tendon.

D. D. Holes for the passage of blood-vessels.

FIG. IV. Shews an upper and side-view of the coffin-bone.

A. It's round part, or toe.

B. B. Its processes, or heels.

C. The cavity of the joint.

D. D. The joining of the cartilages on each side of the joint.

B

FIG.

FIG. V. Shews the back part of the coronary bones.

A. The ball which enters the cavity of the coffin-bone.

B. The socket which receives the pastern-bone.

FIG. VI. Shews the fore part of the coronary-bone.

A. The coffin-joint.

B. The pastern-joint.

FIG. VII. Shews the nut, or shuttle-bone.

FIG. VIII. Shews that side of the nut-bone which is placed next the joint.

A. The longitudinal notch which rests upon the coffin-bone.

FIG.

FIG. IX. Represents a back view of the bones of the foot, joined in their proper places.

A. The pastern-bone.

B. The coronary-bone.

C. The nut or shuttle-bone, upon the articulation of the coronary-bone, with the coffin-bone.

D. The coffin-bone.

E. E. The processes.

F. F. A round notch or groove for the passage of a large blood-vessel on each side of the bone.

G. G. The holes for the passage of blood-vessels into the substance of the bone.

FIG. X. Represents the common

B 2 concave

concave shoe, with it's round surface,
which rests upon the ground.

A. A. The washes.

B. B. The cramps or caukers upon the heels.

FIG. XI. Shews that side of the common concave shoe which is placed next the foot.

FIG. XII. Represents the form of the shoe, that is recommended with its flat surface.

FIG. XIII. Shews that side which is placed next to the foot.

A. A. The narrow rim which rests upon the crust.

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OBSERVATIONS

UPON THE

SHOEING OF HORSES.

HORSES are more liable to diseases and accidents in the feet than in any other part of the body : The causes of which seem to be but very little enquired into, from a persuasion that the art of shoeing is arrived at its utmost perfection, and that no bad consequences can attend a method so universally established.

BUT

BUT if we examine with attention into the common manner of shoeing horses, and into that pernicious practice of paring and cutting away their hoofs, it will then be obvious from whence most of those maladies arise.

THE shoeing of an horse properly, is an operation of greater importance to the soundness of their feet than is generally imagined :—And I am convinced from observation and experience, that the greater part of horses are rendered useless before they arrive at half their age, by following that method practised by the generality

lity of Farriers. This observation refers chiefly to their fore-feet.

To confirm the truth of what I assert, it will be necessary,

1st, To give a general anatomical description of the foot of an horse.

2d, To give an account of the common method of shoeing horses, and the manner of treating their feet; and to point out the bad effects that attend it.

3d, To explain the method approved of and recommended.

4th, To endeavour to prove the truth of what is advanced, from

the

the practice of Farriers; and to add some general remarks upon the whole subject.

*A general Anatomical Description of
the FOOT of an HORSE.*

THE hoof of an horse is of an horny substance, without sense or feeling, and serves as a box or covering for the foot, to defend the blood-vessels, nerves and tendons from external injuries, and to support the weight of the body.

THE external parts of the hoof may be divided into four—The crust or walls of the hoof—The sole—The frog,

frog, or heel—And the bars, or binders.

THAT circular part into which the nails are fixed in shoeing, called the crust, (and by some the walls of the foot) is of a tough hard substance, thick and strong at the fore-part or toe, but thinner and weaker towards the heels *. At the extremity of each heel, it reflects inward and forward to the point of the frog—there it is termed the bars or binders of the foot. It is this part that suffers most by paring, un-

* Although the frog is properly the heel of a horse's foot, yet, the extremities of the crust on each side of the frog are called the heels, and are distinguished by the names of outside and inside.

der a false notion of opening the heels. But, in fact, it has the very contrary effect, which I shall endeavour afterwards to prove.

THE sole fills up the inner and under part of the crust, and is composed of a number of scaly layers, which, when grown too luxuriant, dry, separate, and fall off in scales. The sole is considerably softer and tougher than the crust, and, when much weakened by paring, the internal parts of the foot are liable to bruises from sharp stones, &c.: but, if allowed to remain in its natural strength, and exposed to hard bodies, it acquires a great degree of hardness,

which

which enables it the better to resist external injuries.

THE frog is of a soft spongy substance, shaped like a dart, and reaches from the posterior extremity of the heel toward the middle of the sole. In the middle of the frog is a longitudinal cleft or opening, by which, the heels have a small degree of contraction and expansion at every tread which the animal makes upon the ground,

THE frog serves as a cushion for the tendon to rest upon. The sole, the frog, and the bars keep the inferior part of the crust extended at a proper wideness, that the bones, tendons, &c. which are inclosed

within it, may be free from compression, and that a free circulation of the blood may be preserved.

INCLOSED within the hoof are two bones, viz. the coffin and the nut-bone*. The former, from its situation, is called the coffin-bone. On the upper part, where it receives the end of the coronary-bone †, it is thick and round, but grows thinner and broader towards its basis. The under part is concave, with two projections or processes at each posterior extremity, which gives it a fe-

* This bone is not taken notice of, either by Snape, or Gibson.—La Fosse calls it the nut-bone.

† Snape and Gibson call this the little pastern-bone.

milunar

milunar form. In the middle, between these processes, one of the flexor tendons is inserted.

THE substance of this bone is open and porous, full of *foramina*, or little holes for the passage of blood-vessels, &c. Between it and the horny sole lies the expansion of one of the flexor tendons, called the fleshy sole.

UPON the superior and posterior eminence of the coffin-bone are fixed two broad cartilages, one on each side of the joint which project backward, and serve to strengthen and keep extended the superior part of the crust.

THE

THE nut or heel-bone is placed transversely upon the articulation of the coronary-bone with the coffin-bone *, and resembles in shape a weaver's-shuttle, sharp-pointed at each extremity, and thick and bunching in the middle. Upon the inner and under part of it is a small longitudinal notch, which receives the posterior edge of the coffin-bone upon which it is supported.

FROM the shape and situation of the nut-bone, it serves to enlarge the socket of the coffin-bone, by which means the coronary-bone has a greater surface to move and rest upon.

* See the anatomical plate. *Fig. IX.*

If we attend to the use and motion of these parts, we will find, that, in walking, when the leg is extended, and the horse bringing forward his body, the posterior part of the coronary-bone is pressed upon the nut-bone, the nut-bone upon the tendon, the tendon upon the frog, and the frog upon the ground.

FROM this account of the structure of the foot, it is evident, that horses can tread the hardest ground without shoes: and in the northern parts of this kingdom it is well known, they are accustomed to perform all manner of work without being shoe'd.

THE

THE only part of the hoof that seems to wear, or break away, is the crust ; and the original practice of fixing a piece of iron upon it, to prevent this effect, answered the end :—But how we came to deviate from this simple method, and follow one so unnatural as that commonly practised, will be hard to determine.

THE shoeing of horses is allowed, on all hands, to be necessary to defend the crust from wearing away, or breaking off. But, why do we act contrary to sense and reason, in cutting away that substance provided by nature for the defence of the
internal

internal parts of the foot, *viz.* the frog, the sole, and the bars; and in order to repair this injury, place on the foot a strong broad-rimmed shoe, from the construction of which, together with the loss of its natural defence, the heels in time are contracted, and horses often rendered totally useless.

THE bad effects of this practice I shall now endeavour to point out.

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*The common Method of SHOEING
HORSES, with the pernicious
Consequences attending it.*

IN preparing the foot for the shoe, the frog, the sole, and the bars or binders are pared so much that the blood frequently appears. The shoe by its form (being thick on the inside of the rim, and thin upon the outside *) must of consequence be made concave or hollow on that side, which is placed immediately next the foot, in order to prevent its resting upon the sole : The shoes are generally of an immoderate weight and length, and every means is used to prevent

* See Fig X. and XI.

the Frog from resting upon the ground, by making the shoe-heels thick, broad and strong, or raising cramps or caukers on them.

FROM this form of the shoe, and from this method of treating the hoof, the frog is raised to a considerable height above the ground, the heels are deprived of that substance which was provided by nature to keep the crust extended at a proper wideness (as I have formerly observed), and the foot is fixed as it were in a mould.

By the pressure from the weight of the body, and resistance from the outer edges of the shoe, the heels are forced together, and retain that

shape impreſt upon them, by the ſhoe acting as a mould.

THE general uſe of this method can be no argument for it, ſince its imperfections are ſo evident.

LET us then obſerve the pernicious conſequences attending this practice, and the bad effects it may have upon the internal parts of the foot.

THE heels, as has been obſerved, being forced together, the cruſt preſſes upon the proceſſes of the coffin, and extremities of the nut-bone: The frog is confined, and raiſed ſo far from the ground, that it cannot have that ſupport upon it, which it ought

ought to have: The circulation of the blood is impeded, and, a wasting of the frog, and frequently of the whole foot ensues.

HENCE proceed all those diseases of the feet, known by the names of hoof-bound, narrow-heels, running-thrushes, corns, high-soles, &c. &c.

I HAVE likewise frequently observed from this compression of the internal parts of the foot, a swelling of the legs immediately above the hoof, attended with great pain and inflammation, with a discharge of thin, ichorous, fetid matter: From which symptoms, it is often concluded, that the horse is in a bad habit of body,

dy, and must therefore undergo a course of medicine, &c.

THE bad effects of this practice are still more obvious upon the external parts of the hoof. The crust toward the toe, being the only part of the hoof free from compression, enjoys a free circulation of that fluid necessary for its nourishment, and grows broader and longer ; from which extraordinary length of toe, the horse stumbles in his going, and cuts his legs : the smaller particles of sand insinuate themselves between the shoe and the heels, which grind them away, and, in time, produces lameness. All this is entirely

entirely owing to the great spring the heels of the horse must unavoidably have upon the heels of a shoe made in this form.

THIS concave shoe in time wears thin at the toe, and, yielding to the pressure made upon it, is forced wider, and of consequence breaks off all that part of the crust on the outside of the nails. Instances of this kind daily occur, infomuch, that there hardly remains crust sufficient to fix a shoe upon.

It is generally thought, that the broader a shoe is, and the more it covers the sole and frog, a horse will travel the better. But, as has been
formerly

formerly remarked, the broader a shoe is of this form, it must be made the more concave, and, of consequence, the contraction upon the heels must be the greater. It is likewise to be observed, that, by using strong broad-rimmed concave shoes in the summer-season, when the weather is hot and the roads very dry and hard, if a horse is obliged to ride fast, the shoes, by repeated strokes (or friction) against the ground, acquire a great degree of heat which is communicated to the internal parts of the foot ; and, together with the contraction of the heels occasioned by the form of the shoe, must certainly cause exquisite pain. This pain is succeeded by

a violent inflammation in the internal parts of the hoof, which is most frequently the cause of that disease in the feet, so fatal to the very best of our horses, commonly termed a *founder*. This is also the reason why horses, after a journey, are observed to shift their feet so frequently, and to lie down immediately.

If we attend further to the convex surface of this shoe, and the convexity of the pavement, it will then be evident, that it is impossible for horses to keep their feet from slipping in this form of shoe especially upon declivities of streets.

It is also a common practice, e-

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specially

specially in this metropolis, to turn
 up the heels of the shoes into what
 is called Cramps or Caukers, by which
 means, the weight of the horse is
 confined to a very narrow surface,
viz. the inner edge of the shoe-rim
 and the points or caukers of each
 heel, which, for the most part, are
 made by far too thick and long.
 The consequence is, that it throws
 the horse forward upon the toes, and
 is apt to make him slip and stumble.
 To this cause we must likewise ascribe
 the frequent and sudden lameness
 horses are subject to in the legs, by
 twisting and straining the ligaments
 of the joints, tendons, &c.

I do not affirm, that caukers are
 always

always hurtful, and ought to be laid aside. On the contrary, I grant they are extremely necessary, and may be used with advantage upon flat shoes where the ground is slippery ; but, they should be made thinner than those commonly used so as to sink into the ground, otherwise they will rather do prejudice, than be of any advantage.

THE Chinese are said to account a small foot an ornament in their women, and, for that purpose, when young, their feet are confined in small shoes. This no doubt produces the desired effect ; but must necessarily be very prejudicial to them in walking,

walking, and apt to render them entirely lame.

THIS practice however very much resembles our manner of shoeing horses : For if we looked upon it as an advantage to them to have long feet, with narrow low heels, and supposing we observed no inconvenience to attend it, or bad consequence to follow from it, we could not possibly use a more effectual means to bring it about, than by following the method already described.

IN shoeing a horse therefore, we should in this as in every other case study to follow nature : And certainly that shoe that is made of such a
form,

form, as to resemble as near as possible the natural tread and shape of the foot, must be preferable to any other.

BUT as it is extremely difficult, to lay down fixed rules with respect to the proper method to be observed in treating different horses' hoofs, so it is equally difficult to lay down any certain rule for determining the precise form to be given their shoes. This will be obvious to every judicious practitioner from the various constructions of their feet, from disease, and from other causes that may occur; so that a great deal must depend upon the discretion and judgment

judgment of the operator. It is also of great consequence, that a Farrier know how much crust each kind of hoof can spare with the greatest advantage to the horse in his way of going, and with the least injury to his feet ; and that he know how to proportion the shoe to the foot by imitating the natural tread, to prevent the hoof from contracting a bad shape.

In order therefore, to give a general idea of what may be thought most necessary in this matter, I shall endeavour to describe that form of shoe and method of treating the hoofs of horses, which from experience I have found must be beneficial.

An

*An Explanation of the Method of
SHOEING HORSES, and
Manner of treating their HOOFS,
here recommended.*

IT is to be remembered, that a horse's shoe ought by no means to rest upon the sole, otherwise it will occasion lameness; therefore it must rest entirely on the crust: And, in order that we may imitate the natural tread of the foot, the shoe must be made as flat as possible (if the height of the sole does not forbid it), it must be of an equal thickness all around the outside of the rim *, and

* For a draught-horse about half an inch thick, and less, in proportion, for a saddle-horse.

on that part of it which is to be placed immediately next the foot, a narrow rim or margin is to be formed, not exceeding the breadth of the crust upon which it is to rest, with the nail-holes placed exactly in the middle; and, from this narrow rim, the shoe is to be made gradually thinner towards its inner edge*.

THE breadth of the shoe is to be regulated by the size of the foot, and the work to which the horse is accustomed: But, in general, it should be made rather broad at the toe, and narrow towards the extremity of each heel, in order to let the frog rest with

* See Fig. XIII.

freedom upon the ground. The necessity of this has been already shown.

THE shoe being thus formed and shaped like the foot, the surface of the crust is to be made smooth, and the shoe, fixed on with eight or at most ten nails, the heads of which should be sunk into the holes, so as to be equal with the surface of the shoe. The sole, frog, and bars, as I have already observed, should never be pared: And, it is very properly remarked by Mr. Osmer, 'That the shoe should be made so as to stand a little wider at the extremity of each heel, than the foot itself; otherwise, as the foot grows

F ' in.

‘ in length, the heel of the shoe in
 ‘ a short time gets within the heel of
 ‘ the horse, which pressure often
 ‘ breaks the crust, produces a tem-
 ‘ porary lameness, perhaps a corn.’

THIS method of shoeing horses I
 have followed long before Mr. Os-
 mer’s treatise on that subject was pu-
 blished, and for these several years
 past I have endeavoured to introduce
 it into practice.

BUT so much are Farriers, Grooms,
 &c. prejudiced in favour of the com-
 mon method of shoeing and paring
 out the feet, that it is with difficulty
 they can even be prevailed upon to
 make a proper trial of it.

THEY cannot be satisfied, unless
 the

the frog be finely shaped, the sole pared, the bars cut out, in order to make the heels appear wide *: This practice gives them a shew of wideness for the time, yet that, together with the concave form of the shoe, forwards the contraction of the heels, which when confirmed, renders the animal lame for life.

IN this flat form of shoe its thickest part is upon the outside of the rim, where it is most exposed to be worn, and being made gradually thinner towards its inner edge, it is therefore much lighter than the common concave shoe, yet it will last equally

* Wide open heels are looked upon as a mark of a sound good hoof.

as long, and with more advantage to the hoof; and as the frog or heel, is allowed to rest upon the ground, the foot enjoys the same points of support as in its natural state. It must therefore be much easier for the horse in his way of going, and be a means of making him surer footed. It is likewise evident, that from this shoe the hoof cannot contract any bad form, when, at the same time, it receives every advantage that possibly could be expected from shoeing. In this respect, it may very properly be said, that we make the shoe to the foot, and not the foot to the shoe, as is but too much the case in the concave shoes, where the foot very much resembles

seembles that of a cat's fixed into a walnut-shell.

It is to be observed, that the hoofs of young horses before they are shoe'd, for the most part are wide and open at the heels, and that the crust is sufficiently thick and strong to admit of the nails being fixed very near the extremities of each. But as I have formerly remarked, from the constant use of concave shoes, the crust of this part of the foot grows thinner and weaker, and when the nails are fixed too far back, especially upon the inside, the horse becomes lame—to avoid this, they are placed more towards the fore-part of the hoof.

hoof, this causes the heels of the horse to have the greater spring upon the heels of the shoe, which is so very detrimental, as to occasion lameness; whereas, by using this flat form of shoe, all these inconveniences are avoided, and if the hoofs of young horses from the first time that they are shoe'd, were continued to be constantly treated, according to the method here recommended, the heels would always retain their natural strength and shape.

By following this flat method of shoeing, and manner of treating the hoofs, several horses now under my care, that were formerly tender-footed, and frequently lame, while shoe'd

shoe'd with broad concave shoes, are now quite sound, and their hobs in as good condition, as when the first shoes were put upon them, in particular, the horse that wore the broad concave-shoes, from which the drawings of *Fig. X.* and *XI.* were taken, now goes perfectly sound in the open narrow kind of shoes, as represented *Fig. XII.* and *XIII.*

It were to be wished, that this method of shoeing horses was more generally followed, and, that all partiality was laid aside for a practice authorized only by custom, and having nothing else to recommend it.

If Farriers considered attentively the design of shoeing horses, and would take pains to make themselves acquainted with the anatomical structure of the foot, they would then be convinced, that this method of treating the hoofs, and that this form of shoe is preferable to that which is so generally practised.

It has been alleged, that in this form of shoe, horses do not go so well as in that commonly used. This objection will easily be laid aside, by attending to the following particulars. There are but few practitioners that can, or will endeavour to make this sort of shoe

as it ought to be. The iron in forming it, does not so easily turn into the circular shape necessary as in the common shoe ; and, perhaps, this is the principal reason why Farriers object to it, especially where they work much by the piece. And, as many horses that are commonly shoe'd with concave shoes have their soles considerably higher than the crust, if the shoe is not properly formed, or if it is made too flat, it must unavoidably rest upon the sole, and occasion lameness.

THE practice of paring the sole and frog is also so prevailing, and thought so absolutely necessary, that it is indiscriminately practised, even

to excess, on all kinds of feet.*: And, while this method continues to be followed, it cannot be expected that horses can go upon hard ground (on this open shoe) with that freedom they would do, if their soles and frogs were allowed to remain in their full natural strength.

EXPERIENCE teaches us, that in very thin soled shoes, we feel an acute pain from every sharp-pointed stone we happen to tread upon. Horses are sensible of the same thing in their feet, when their soles, &c. are pared too thin. Hence

* It is notorious, that a dexterous hand, with a sharp buttress, will cut more hoof away in half-a-minute, than nature can supply in some months,

they

they who are prejudiced against this method, without ever reflecting upon the thin state of the sole, &c. are apt to condemn it, and draw their conclusions more from outward appearances, than from any reasoning, or knowledge of the structure of the foot.

It has been formerly remarked, that if we consider with attention the structure of a horse's foot in a natural state, it will then be obvious, that paring away the sole, frog, &c. must be hurtful, and in reality is destroying that substance provided by nature for the defence of the internal parts of the foot: from such practice it must be more liable to accidents from

hard bodies, such as sharp stones, nails, glais, &c. From this consideration we will likewise find, that a narrow piece of iron adapted to the shape and size of the foot is the only thing necessary to protect the crust from breaking or wearing away: the sole, &c. (as has been already observed) requiring no defence, if never pared.

Obfer-

Observations, proving from the daily Practice of Farriers, the truth of what has been advanced, with some general Remarks.

WHEN the crust of a horse's heels is become so weak, low, and narrow, that the poor animal cannot walk, or even stand, on a plain or common concave shoe,—it is then a practice amongst Farriers to put upon the foot a round, or what is termed a bard shoe, made so as that the frog or heel may rest upon the bar, and the shoe-rim raised at a small distance from the crust of each heel: From this practice it is found, that
the

the horse becomes sound, and that the heels grow wider, higher and stronger, so as to recover their natural strength and shape. Likewise, horses are frequently turned out to graze without their shoes, in order to recover their decayed heels.

THE reason why both these methods recover horses heels that are decayed is plain, but passes unobserved, *viz.* in the former case, the frog or heel is allowed to rest upon the bar of the shoe, which produces the same effect as if it rested upon the ground; and, as the shoe is raised at a considerable distance from the crust of each heel, it grows up, and by the pressure from the weight of the body
the

the heels are expanded. In the latter case, the feet are in their natural state, the frog treads with freedom upon the ground, and the heels being free from confinement, have full liberty to expand.

So much are Farriers convinced of the great advantage arising from the frog's being allowed to rest upon the bar of the shoe, that in many cases, when this cannot easily be done, they fix upon it pieces of thick leather, in order to make the pressure greater upon the frog.

If it is then found, that while a horse's heels are in the situation above-mentioned, he can be made to

go

go found, by allowing the frog or heel to rest upon the bar of the shoe, (for confirmation of which, I appeal to the profession in general), surely then, a horse may be allowed the same privilege of resting upon his frogs, or heels, when they are in their full natural strength.

ABOUT twelve years ago, I had occasion to observe, at London, an instance which confirms what I have been advancing. A horse, who had naturally low weak heels, with flat thin soles, was frequently lame when shoe'd in the common concave shoes: Being a favourite horse, many experiments were tried, and his soles, &c. covered with broad-rimmed shoes;

and, in order to make him tread the softer, pieces of an old hat were placed between the shoes and the feet, but without effect. The owner then resolved to have him shoe'd in that method recommended by la Fosse:

—Many arguments were used against attempting this experiment; particularly, it was urged, that the heels, being already so weak, low, and thin, upon exposing them to the ground, would be worn quite away to the quick, and that it was impossible for the animal to walk without broad shoes to cover his soles and frogs. However, the horse was turned out to grafs for some time, in order to let his frogs, &c. grow up,

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and was then shoe'd in the manner recommended by la Fosse. I had the opportunity of shoeing him in the same method for eleven months afterwards, during which time the horse continued to be sound. And, in a case similar to this, which occurred to me but a few months ago, the hoofs were treated as above, after which, the horse continued to go better than when he was shoe'd with broad, concave shoes,

In these cases, it is evident, from the flatness of the soles, and weakness of the heels, that the common shoes, with broad rims and strong washes, must be made concave, in order

order to prevent them from resting upon the soles, &c.; and that this concave shoe, from the weight of the body, would act upon the weak heels in forcing them together in the manner I have already described (page 15.), and of consequence the horse must be lame. But, on the other hand, when the horse was shoe'd in la Fosse's method, the frog, or heel, was allowed to rest upon the ground, and the heels were at liberty to grow up and expand.

I HAVE often shoe'd horses according to this method, and, contrary to what might have been expected from its appearance, (as this shoe on-

ly covers the toe) the crust of the heels and frog grew wider, higher and stronger than they had been while shoe'd in the common way. This form of shoe I have likewise frequently found to be of great advantage in recent contractions, by restoring the heels to their natural wideness, as by it the toe is raised rather higher than the heels, which makes the pressure considerably greater upon them, and by this means, in time, they are forced wider.

I would not however be understood to recommend in general this short shoe of la Fosse, as it will be found to answer only in some particular

cular cases ; but rather that the shoe should be continued to the point of the heels, and no farther : And this observation may serve to show, that horses can go very well, although their frogs be exposed to the hardest ground ; a doctrine, which seems to have but very little credit with the most of people.

SINCE then it is evident, that a horse's frogs or heels in a natural state rest upon the ground, why should we, as in our common practice of shoeing, deprive them of an advantage so essentially necessary, not only for the support of their own weight, but also that of their riders ? more especially,

specially, as the contrary practice is of the utmost consequence to the keeping extended the crust, and preventing these contractions of the heels, so fatal to most horses.

If we try the experiment upon ourselves, by walking for some time upon our toes, we will soon find, that resting upon the heel is of great advantage, and the more so, if we have an additional weight to support. The case is the same in both, viz. the weight of the body is confined too much upon the tendons.

PERHAPS it may be said, that there are a great many hoofs of such

a shape, from the deepness of the crust, that the frog cannot rest upon the ground, were horses even to go without shoes;—but these hoofs I look upon as already diseased: The frogs for the most part are rotten, and consumed by the contraction of the heels, which occasions an obstruction of that fluid necessary for their nourishment.

I HAVE already hinted, that it requires some time before horses, that have had their soles and frogs so much pared, are able to travel upon hard ground in this form of shoe. But let any one make the experiment, and form the shoe as directed; allow the soles and frogs to grow to their full
natural

natural strength, and keep the crust at the toe as round and short as the foot will admit of, I will then venture to assure them from experience (if the foot is not already diseased) that they will find it to their advantage. Their horses will be rendered more serviceable, and preserved from lameness, and a great many diseases of the feet.

ALTHOUGH so much has been said against paring or cutting away the soles and frogs of horses feet at every time that they are shoe'd;—yet I would not therefore have it understood, that the crust should never be pared; on the contrary, it will be found extremely necessary.

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THE crust of a horse's hoof may not improperly be compared to the nails on our fingers and toes ; and, we see how long, unequal, and ragged they grow, if not properly cut. And if a shoe has been upon a horse's foot for any considerable time, the crust grows on every side, more especially towards the toe ; and there is an absolute necessity to cut this superfluous hoof away, till the foot is reduced to its natural shape and size. Besides, the surface of the crust, upon which the shoe rests, becomes rotten ; therefore, what is unsound must be pared away, in order to pro-

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cure a sound foundation for the new shoe.

BUT it is impossible, in some kinds of feet, to pare the crust, without taking away some part of the sole that is near it : This becomes necessary in order to obtain a smooth and even surface, so far as the breadth of the shoe goes, but no farther.

IT may be alledged that if the soles^a and frogs are never pared, they may grow too large and bulky, so as to be hurtful ; but this cannot happen, for, in proportion, to their growth, what is superfluous dries, separates, and falls off.

FARRIERS

FARRIERS in general are too desirous to excel one another in making what is termed fine neat work ; and this is no other than paring the sole, till it yields easily under the pressure of the thumb ; and, to give the frog a fine shape, it is pared till the blood frequently appears, to prevent the effusion of which the Actual Cautey is sometimes applied. It is to be observed, that when the sole is so much pared, it dries and hardens in proportion as it is thinned ; and the strong horny substance of the crust is contracted ; this will produce lameness, the real cause of which is little attended to, or perhaps not known.

AMONG the many disadvantages that attend the common shoes, one is, their being more liable to be pulled off from their great weight, length, &c. especially in deep grounds, in riding fast, or when the toe of the hinder foot strikes against the heel of the fore shoe: To prevent this inconvenience, sixteen or eighteen nails are frequently made use of, which destroy and weaken the crust from their being placed too near to one another; and it is not uncommon, when a shoe nailed in this manner is pulled off, that the crust on the outside of the nails breaks away with it. If this should happen, a few days after the foot has

has been so finely pared, (which is not unusual) or upon a journey, and at a distance from any place where a shoe may be immediately procured, the horse instantly becomes lame, from the thinness of the soles, &c. and is hardly able to support the weight of his own body, much less that of his rider; whereas, by observing the method here recommended, and by fixing eight or at most ten nails, if the shoe should fall off, the horse will be able to continue his journey, without any inconvenience to his rider, or injury to his hoof.

WERE we to suppose two men (one a breeder of horses, the other

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an ordinary smith), intirely ignorant of any such practice, as that of fixing iron shoes upon the hoofs of horses; but from observing the crust to wear and break off, they conclude it practicable and necessary to fix upon it a piece of iron to prevent this effect. Suppose they should proceed to form this iron to the shape of the foot, in order to obviate the bad consequence mentioned, I dare venture to affirm, it would never enter into their heads to cut away the sole, the frog, and the bars, and to supply this defect, by making the shoe so much broader and stronger.—Yet however inconsistent this might appear, we see the same in effect practice

tised daily. Horses soles and frogs are pared till they are made thin, and then broad strong rimmed shoes are put upon the feet to defend the remainder, or, in other words, to supply the want of that substance which had been pared away. Besides these shoes being made hollow, (or dished, as it is termed,) gives them a round surface; which makes the poor animals go as it were upon pattens; and when they are brought upon pavement, especially those of the draught kind, they slip about and strain every nerve to keep themselves from falling.

A LITTLE reflection upon what
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has been said, with respect to the different methods of shoeing horses, and the manner of treating their feet, will, I am persuaded, convince any person of judgment and impartiality, of the propriety and usefulness of the one here recommended, and of the pernicious consequences that attend the method commonly practised.

If we attend further to the known properties of horn, and of what a flexible nature it is, it will then be evident, that by confining the hoofs of a horse in a mould, they will retain the shape that is impress'd upon them; whereas, by imitating the natural tread of the foot, and preserving it

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in its full strength, the horse is allowed to stand upon that firm basis which nature has given him.

It has already been observed, that no general rule can, with certainty, be laid down, for determining the precise form to be given horses shoes, or the particular manner of treating their hoofs: But I would observe upon the whole, that the less we take away from the natural defence of the foot, the less artificial defence will be necessary; the flatter we make the shoe, we give the horse the more points of support, and imitate the natural tread of the foot; therefore, the nearer we fol-

low these simple rules, the nearer
we approach to perfection in this
art.

It has already been observed,
that no general rule can, with cer-
tainty, be laid down, for determi-
ning the precise form to be given
to the horse's nose, or the particular man-

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But I would observe upon the whole, that
the less we take away from the na-
tural distance of the foot, the less ar-
tificial distance will be necessary; the
further we make the knee, we give
the horse the more points of support,
and imitate the natural tread of the
foot; therefore, the nearer we fol-